

ABSTRACT OF THE DISCLOSURE

A transition of an external enable signal generates a reset pulse to a counter to set the counter into a known state. The counter, clocked by the external clock signal, generates a clock signal that is decoded by a fuse decoder circuit. The fuse decoder circuit outputs a selection signal to a trim circuit. The trim circuit produces a voltage selection signal, such as a resistance value, that is indicated by the selection signal for use by an internal reference voltage generation circuit. The output of the internal reference voltage generation circuit is compared to the external reference voltage. The counter circuit continues counting until the internal reference voltage is equal to or greater than the external reference voltage. The counter is disabled and the final count that produced the proper internal reference voltage is stored in non-volatile memory cells for future use.